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AUTHOR Russ-Eft, Darlene; Flanagan, John C.
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ABSTRACT

The study examined the effects of educational experiences on an individual's quality of life after completion of formal schooling. The sample was 500 men and 500 women representative of the entire population of 15-year-olds in the United States in 1960. Because they had participated in Project TALENT during 1960, files were available on their academic abilities, interests, background, and future plans. At the time of the study in 1975, they were 30 years old and had established adult life styles. In interviews in 1975, 75% of the sample identified nine components that were important to their quality of life. Of six of these, 80% were satisfied with their present status. These were: health, spouse, job, children, parents and siblings, and close friends. Respondents indicated dissatisfaction in areas of intellectual development, developing maturity, and material well-being. In terms of relevance of their educational experiences, most men would have liked more background in industrial arts, mathematics, and science. Women would have liked more background in business education, foreign languages, and fine arts. Comparative analysis of the 1960 Project TALENT files and the 1975 interviews revealed that similar problems were experienced by the participants in secondary school in the form of inadequate vocational guidance, inappropriate curriculum, and minimal individualized instruction. (Author/AV)

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Dimensions of Quality of Life as an Index to Aid in Formulating Educational Goals[1]

Darlene Russ-Eft[2] and John C. Flanagan

American Institutes for Research

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[2]Requests for reprints should be sent to: Darlene Russ-Eft, American Institutes for Research, P.O. Box 1113, Palo Alto, CA 94302

This paper outlines an empirical study(Flanagan & Russ-Eft, 1975a) of the educational experiences and requirements of individuals as a partial basis for formulating educational priorities and goals. From many points of view the most valid approach to evaluating the adequacy and appropriateness of present educational goals and programs is in terms of the performance of the school's graduates. Much anecdotal evidence is available on graduates of various schools, but there are few comprehensive studies systematically relating educational experiences with subsequent performance in important life roles.

To define the educational goals that are important for all students to achieve and also to identify those goals that are important to only certain students, the American Institutes for Research conducted an in-depth interview follow-up of Project TALENT participants. Project TALENT (Flanagan et.al., 1964, 1966, 1971; Shaycoft et.al., 1963) was initiated with the testing of 400,000 high school students in the Spring of 1960. Based on the two day testing, each student's record consists of individual and composite scores on a battery of tests of abilities and information, responses to an interest inventory, as well as information on family background, current activities and future plans. The present study used the information from this two day testing in 1960, and collected new data using 3 hour interviews with each 30-year-old participant.

Method

Subjects The sample consists of 500 men and 500 women who are representative of the entire population of 15-year-olds in the United States in 1960. The sample was chosen from among the Project TALENT participants. The Project TALENT group consists of a stratified random sample of approximately 4% of all students who were enrolled in grades 9-12 in 1960. In 10% of the schools, Project TALENT participants also included a special sample of all 15-year-olds who were enrolled in grades 1-8 in 1960 or who had already left school in those particular school districts. Cases were drawn from the TALENT files so that the sample would be self-weighted

Sixty-seven percent of the original sample participated in the study. Using a stratified random procedure, replacements for those cases that were not located, declined or were unavailable for the interview were selected

to retain the characteristics of the initial sample with respect to grade level in 1960, region of the country, reading comprehension and socio-economic status.

Materials The first several sections of the interview dealt with experiences in school from elementary school through any post-secondary education or training. The later sections of the interview were devoted to current situations and future plans. The framework for the sections on current life was based on the 15 dimensions of quality of life as identified by Flanagan and Russ-Eft (1975b) in a critical incident study. Figure 1 presents the resulting components.

Procedures The participants were located and contacted by the project staff in Palo Alto. The interviewing program was administered through coordinators and interviewers in universities and other institutions throughout the United States and in Europe, Africa, the Middle East, Asia and South America. Interviews were conducted for the most part in the interviewee's home or in the office of the interviewer.

Results and Discussion

Ratings of Importance and Satisfaction of Quality of Life Dimensions

In Tables 1 and 2 appear the cross-tabulations of importance and satisfaction for the fifteen quality of life dimensions. There are nine components that more than three-fourths of these young people report as either important or very important to their quality of life. On six of these, 80% or more of both the men and the women, who rate the component as either important or very important, are either satisfied or very satisfied with their present status on this component. These six components include health, spouse, job, children, parents and siblings, and close friends. For two of the remaining three, developing maturity and material well-being, the corresponding figure is 70%. Intellectual development is the one component that three-fourths or more of the 30-year-olds regard as important or very important to their quality of life, but as few as 59% of the men and 50% of the women are satisfied with their status on it.

The remaining six components are rated as important or very important to their quality of life by only about half of these young people. For three

FIGURE 1

Components Comprising Quality of Life

PHYSICAL AND MATERIAL WELL-BEING

A. Material well-being and financial security

Having good food, home, possessions, comforts, and expectations of these for the future. Money and financial security are typically important factors. For most people filling these needs is primarily related to their efforts or those of their spouse.

B. Health and personal safety

Enjoying freedom from sickness, possessing physical and mental fitness, avoiding accidents and other health hazards. Problems related to alcohol, drugs, death, and aging are also included. Effective treatment of health problems is a large component.

RELATIONS WITH OTHER PEOPLE

C. Relations with spouse (girlfriend or boyfriend)

Being married or having a girlfriend or boyfriend. The relationship involves love, companionship, sexual satisfaction, understanding, communication, appreciation, devotion, and contentment.

D. Having and raising children

Having children and becoming a parent. This relationship involves watching their development, spending time with them and enjoying them. Also included are things like molding, guiding, helping, appreciating, and learning from them and with them.

E. Relations with parents, siblings, or other relatives

Having parents, siblings, or other relatives. In these relationships one experiences communicating with or doing things with them, visiting, enjoying, sharing, understanding, being helped by and helping them. The feeling of belonging and having someone to discuss things with is a large component.

F. Relations with friends

Having close friends. In these relationships one shares activities, interests and views. Important aspects of these relationships involve being accepted, visiting, giving and receiving help, love, trust, support, and guidance.

FIGURE 1

Components Comprising Quality of Life

SOCIAL, COMMUNITY, AND CIVIC ACTIVITIES

G. Activities related to helping or encouraging other people

Helping or encouraging adults or children (other than relatives or close friends). This can be done through one's efforts as an individual or as a member of some organization, such as a church, club, or volunteer group, that works for the benefit of other people.

H. Activities relating to local and national governments

Keeping informed through the media; participating by voting and other communications; having and appreciating one's political, social, and religious freedom. One component of this includes having living conditions affected by regulation, laws, procedures, and policies of governing agencies and the individuals and groups that influence and operate them.

PERSONAL DEVELOPMENT AND FULFILLMENT

I. Intellectual development

Learning, attending school, acquiring desired knowledge and mental abilities, graduating, and problem solving. Other aspects involve improving understanding, comprehension or appreciation in an intellectual area through activities in or out of school.

J. Personal understanding and planning

Developing and gaining orientation, purpose, and guiding principles for one's life. This may involve becoming more mature, gaining insight into and acceptance of one's assets and limitations, experiencing and awareness of personal growth and development, and realizing the ability to influence the course of one's life significantly. It also includes making decisions and planning life activities and roles. For some people, a major component arises from religious or spiritual experiences or activities.

FIGURE 1

Components Comprising Quality of Life

K. Occupational role (job)

Having interesting, challenging, rewarding, worthwhile work in a job or home. This includes doing well, using one's abilities, learning and producing, obtaining recognition, and accomplishing on the job.

L. Creativity and personal expression

Showing ingenuity, originality, imagination in music, art, writing, handicrafts, drama, photography, practical or scientific matters or everyday activities. This also includes expressing oneself through a collection, a personal project, or an accomplishment or achievement.

RECREATION

M. Socializing

Entertaining at home or elsewhere, attending parties or other social gatherings, meeting new people, interacting with others. It may include participation in socializing organizations and clubs.

N. Passive and observational recreational activities

Participating in various kinds of passive recreation, such as watching television, listening to music, reading, going to the movies, and going to entertainment or sports events. It also involves appreciating the art and beauty in many aspects of life.

O. Active and participatory recreational activities

Participating in various kinds of active recreation, such as sports, hunting, fishing, boating, camping, vacation travel, and sightseeing, etc. This may also involve playing sedentary or active games, singing, playing an instrument, dancing, acting, etc.

TABLE 1

Cross-Tabulation for 500 Males of Ratings on Importance and Ratings on Satisfaction for the 15 Quality of Life Dimensions

Rows: Very Satisfied = VS
Satisfied = S
Moderately Satisfied = MS
Only Slightly Satisfied = OSS
Not At All Satisfied = NAS
No Response = NR

Columns: Very Important = VI
Important = I
Moderately Important = MI
Only Slightly Important = OSI
Not At All Important = NAI
No Response = NR

Material Well-Being

	VI	I	MI	OSI	NAI	NR	TOT
VS	80	50	20	8	3	2	163
S	91	77	30	5	2		205
MS	44	33	19	5			101
OSS	9	3	2	1			15
NAS	7	3	2				12
NR	3					1	4
TOT	234	166	73	19	5	3	500

Close Friends

	VI	I	MI	OSI	NAI	NR	TOT
VS	68	41	22	11	12	3	157
S	70	112	40	12	11	1	246
MS	21	24	18	4	3		70
OSS	6	3	1	2	1		13
NAS	5		2	1	1		9
NR	1	1				3	5
TOT	171	181	83	30	28	7	500

Health

VS	210	19	1				230
S	154	33	6		1	2	196
MS	36	12	2				50
OSS	10	1					11
NAS	6	2					8
NR						5	5
TOT	416	67	9		1	7	500

Helping Others

VS	44	14	9	10	14		91
S	50	63	21	30	37	5	206
MS	33	37	20	15	4	1	110
OSS	10	20	5	12	1		48
NAS	10	6	4	5	4	1	30
NR	2	1	1	1	3	7	15
TOT	149	141	60	73	63	14	500

Parents and Siblings

VS	112	44	20	6	9		191
S	61	78	48	18	5	1	211
MS	12	16	22	8	2		60
OSS	4	3	5	4	1		17
NAS	3	3	2	6	3		18
NR	2					1	3
TOT	194	144	97	42	21	2	500

Government

VS	13	5	8	14	23		63
S	37	53	43	38	28		199
MS	34	33	26	14	6	1	114
OSS	18	13	19	9	3		62
NAS	14	12	3	6	14		49
NR	1			5	6	1	13
TOT	117	116	99	86	80	2	500

Children

VS	165	20	8	8	13	1	215
S	93	30	8	6	8		145
MS	24	17	5	2	1		49
OSS	8	3	2	1			14
NAS	13	5	1		6	2	27
NR	7	1		5	1	36	50
TOT	310	76	24	22	29	39	500

Intellectual Development

VS	69	13	4	1	1		88
S	104	65	16	8	5		198
MS	76	35	13	4	1	4	133
OSS	31	17	4	2			54
NAS	14	1		1	3		19
NR		2			2	4	8
TOT	294	133	37	16	12	8	500

Spouse

VS	200	21	2		6		229
S	87	48	8	5			148
MS	19	10	11	1	2		43
OSS	7	3	4		1		15
NAS	9	3	1		2		15
NR						50	50
TOT	322	85	26	6	11	50	500

Maturity

VS	87	16	5	3	5		116
S	109	86	32	11	4		242
MS	57	33	10	2	1	1	104
OSS	13	5	1				19
NAS	4		1		1		6
NR	3	1			1	8	13
TOT	273	141	49	16	12	9	500

Table 1 (cont.)

Cross-Tabulation for 500 Males of Ratings on Importance and Ratings on Satisfaction for the 15 Quality of Life Dimensions

Rows: Very Satisfied = VS
Satisfied = S
Moderately Satisfied = MS
Only Slightly Satisfied = OSS
Not At All Satisfied = NAS
No Response = NR

Columns: Very Important = VI
Important = I
Moderately Important = MI
Only Slightly Important = OSI
Not At All Important = NAI
No Response = NR

Job

	VI	I	MI	OSI	NAI	NR	TOT
VS	156	35	8	4	2	1	206
S	87	54	9	3	2	3	158
MS	34	16	10			1	61
OSS	14	5	1	2			22
NAS	13	1					14
NR	9	3	2			25	39
TOT	313	114	30	9	4	30	500

Creativity

VS	41	13	5	14	22		95
S	32	45	26	50	38	1	192
MS	32	35	42	20	5		134
OSS	16	10	9	6	1		42
NAS	5	3	3		5		16
NR	2	1	3	2	7	6	21
TOT	128	107	88	92	78	7	500

Socializing

VS	36	26	31	19	14		126
S	25	85	73	45	10		238
MS	15	30	29	16	2	1	93
OSS	7	9	7	4	2		29
NAS	5	1			4		10
NR		1			1	2	4
TOT	88	152	140	84	33	3	500

Passive Recreation

VS	46	40	30	12	2		130
S	43	80	65	25	3		216
MS	19	28	33	15	3		98
OSS	7	8	8	6			29
NAS	1	2	2	3	3		11
NR	3	3	1	6	1	2	16
TOT	119	161	139	67	12	2	500

Active Recreation

VS	62	23	13	9	12		119
S	38	76	35	30	8	2	189
MS	28	32	36	14	5		115
OSS	7	14	13	9	1	1	45
NAS	3	3	4	1	4		15
NR	1	6	3		4	3	17
TOT	139	154	104	63	34	6	500

TABLE 2

Cross-Tabulation for 500 **Females** of Ratings on Importance and Ratings on Satisfaction for the 15 Quality of Life Dimensions

Rows: Very Satisfied = VS
Satisfied = S
Moderately Satisfied = MS
Only Slightly Satisfied = OSS
Not At All Satisfied = NAS
No Response = NR

Columns: Very Important = VI
Important = I
Moderately Important = MI
Only Slightly Important = OSI
Not At All Important = NAI
No Response = NR

Material Well-Being

	VI	I	MI	OSI	NAI	NR	TOT
VS	71	55	34	12	6	2	180
S	61	86	42	7	1		197
MS	35	30	13	8	1	1	88
OSS	12	8	1	1			22
NAS	8	4					12
NR						1	1
TOT	187	183	90	28	8	4	500

Close Friends

	VI	I	MI	OSI	NAI	NR	TOT
VS	118	42	20	3	6		189
S	65	96	35	9	9	2	216
MS	22	26	13	3	1		65
OSS	4	9	2	2			17
NAS	4						4
NR	2					7	9
TOT	215	173	70	17	16	9	500

Health

	VI	I	MI	OSI	NAI	NR	TOT
VS	219	13	2			1	235
S	154	34	2		1	2	193
MS	39	13	1		1		54
OSS	9						9
NAS	3	1					4
NR					1	4	5
TOT	424	61	5		3	7	500

Helping Others

	VI	I	MI	OSI	NAI	NR	TOT
VS	73	25	8	5	7		118
S	53	81	15	21	12	1	183
MS	29	38	17	8	5	2	99
OSS	8	22	14	6	4	1	55
NAS	4	9	4	6	6		29
NR	2	4	1	2	1	6	16
TOT	169	179	59	48	35	10	500

Parents and Siblings

	VI	I	MI	OSI	NAI	NR	TOT
VS	191	39	14	5	4	1	254
S	62	55	18	9	3		147
MS	30	20	9	4	1		64
OSS	6	3	9	2	1		21
NAS	4	2	1		2	1	10
NR			1			3	4
TOT	293	119	52	20	11	5	500

Government

	VI	I	MI	OSI	NAI	NR	TOT
VS	8	11	9	13	28	1	70
S	24	47	37	34	45		187
MS	33	36	28	11	8	1	117
OSS	10	12	13	15	5		55
NAS	14	7	8	8	11		48
NR	1	6	3	5	2	6	23
TOT	90	119	98	86	99	8	500

Children

	VI	I	MI	OSI	NAI	NR	TOT
VS	190	10	1	3	9	3	216
S	130	29	7	3	1	1	171
MS	39	8	6	1		1	55
OSS	7	4					11
NAS	10	3					13
NR	4	3	1	1	1	24	34
TOT	380	57	15	8	11	29	500

Intellectual Development

	VI	I	MI	OSI	NAI	NR	TOT
VS	41	10	4	2	3		60
S	82	65	19	12	8	2	188
MS	80	51	20	9	1	2	163
OSS	24	21	4	5	2		56
NAS	17	5	2	1	1	1	27
NR	1					5	6
TOT	245	152	49	29	15	10	500

Spouse

	VI	I	MI	OSI	NAI	NR	TOT
VS	222	11	5	1	1		240
S	84	26	3	1	1		115
MS	36	13	7		2		58
OSS	10	2	2				14
NAS	10	1	1		1		13
NR	2	1				57	60
TOT	364	54	18	2	5	57	500

Maturity

	VI	I	MI	OSI	NAI	NR	TOT
VS	82	15	5	2	3	1	108
S	131	87	12	2	4		236
MS	57	40	6				103
OSS	15	11	2	1			29
NAS	6	2	1		2		11
NR		4	1			8	13
TOT	291	159	27	5	9	9	500

Table 2 (cont.)

Cross-Tabulation for 500 Females of Ratings on Importance and Ratings on Satisfaction for the 15 Quality of Life Dimensions

Rows: Very Satisfied = VS
Satisfied = S
Moderately Satisfied = MS
Only Slightly Satisfied = OSS
Not At All Satisfied = NAS
No Response = NR

Columns: Very Important = VI
Important = I
Moderately Important = MI
Only Slightly Important = OSI
Not At All Important = NAI
No Response = NR

Job

	VI	I	MI	OSI	NAI	NR	TOT
VS	143	36	6	4	4		193
S	79	77	14	3	2	2	177
MS	36	24	6	1	1		68
OSS	9	5	2	1		1	13
NAS	8	3	1	1	1		14
NR	12	4	3	2	1	7	30
TOT	288	149	32	12	9	10	500

Creativity

VS	47	16	11	7	20	1	102
S	38	55	23	31	30	1	178
MS	26	36	42	12	9	2	127
OSS	12	19	16	8	2		57
NAS	3	5	4	6	4	2	24
NR		1	2	1	3	5	12
TOT	126	132	98	65	68	11	500

Socializing

VS	50	47	35	13	16	1	162
S	28	63	52	39	17	1	200
MS	13	28	37	5	2	1	86
OSS	10	12	8	1	2		33
NAS	1	7	1		1		10
NR	1			1		7	9
TOT	103	157	133	59	38	10	500

Passive Recreation

VS	43	43	25	16	4		131
S	45	64	64	30	5		208
MS	15	32	36	13	3	1	100
OSS	5	10	12	9			36
NAS	4		1	3	1		9
NR		3	5	3	2	3	16
TOT	112	152	143	74	15	4	500

Active Recreation

VS	45	22	6	11	13		97
S	33	67	44	40	20		204
MS	16	31	38	17	7		109
OSS	7	11	10	12	2	1	43
NAS	7	7	4	3	6	1	28
NR	1		2	4	8	4	19
TOT	109	138	104	87	56	6	500

of these components, more than 70% of the men and women who rated a component as important or very important report that they are satisfied or very satisfied with their present status. These three components include passive recreation, active recreation, and socializing. The remaining three components are helping other people, for which the corresponding fugure on satisfaction with present activities is a little more than 60%; creativity for which it is a little less than 60%; and participation in government for which it is somewhat less than 50%.

As an overall generalization of these data, it seems that most of these 30-year-olds are off to a good start in life and are doing quite well with respect to the things that are most important to them. They do indicate that they would like to do better in areas of intellectual development, developing maturity and material well-being. In addition, certain people would like to improve in the areas of government, creativity and helping others. It is hoped that social programs can be improved and modified to enable them to achieve greater satisfaction in the areas that are of importance to them.

The Contribution of Education Certainly education has contributed to the lives of these men and women in many different ways. At least 63% of men and 53% of the women have, at age 30, received as much or more education than they expected as a 15-year-old. The educational experiences provided by the high schools were reported as being used by at least some members of the sample. However, the skills reported as being used most frequently were in the areas of mathematics,business education, language arts, home economics, and industrial arts. In the future, at least 13% of the sample plan to obtain additional education to improve their occupational role in terms of advancement or a different career. Thus, these people plan to improve one aspect of their quality of life through education.

There are, however, some areas in which education could contribute in added ways to the lives of these people. An earlier paragraph in this section indicated some quality of life areas in which educational programs could be improved. In addition, the participants themselves reported several areas in which they needed more educational experiences. In terms of courses that they wished they had had, men most frequently reported industrial arts, vocational courses, mathematics and science, while women reported business education, foreign languages and fine arts. Of the men and women who attended college,

24% reported that they were only "slightly prepared" or "not at all prepared" for college. Some of the most frequently mentioned ways in which these college people lacked in their preparation involved language arts, mathematics, study skills, science, and maturity. Finally, the data on occupational expectations and outcome indicated a need for some additional programs in the schools. Only about 13% of the men are in the same career groups that they chose as 15-year-olds. About 19% of the women are in the same career group that they expected in 1960. The larger percentage for women results mostly from those in the group of housewives. It should be noted that 39% of these people now report that, as a teenager, they understood the educational requirements of a job "only slightly well" or "not well at all." In addition, almost 25% of these men and women report a low level of understanding of their own abilities and interests when they were a teenager. Improved programs in the schools would have enabled these students to formulate more realistic goals for their occupations and their future lives.

Studies of Individuals To understand both the positive and negative contributions and the many opportunities missed, it is essential to read each of these life histories carefully. In developing practical procedures for evaluating and communicating the significance of these histories, an abstracting method has evolved that enables most of the relevant data from the two days of Project TALENT testing and the 120 page three-hour interview to be condensed to a four to six page abstract.

At this point in time, we are nearing completion of the abstracts for all 1000 participants. Based on a sample of 200 abstracts, Flanagan (1975) reported on the five most common problem areas.

Vocational guidance was badly needed by these students and rarely adequate. It was judged to have been seriously inadequate for 88 percent of the boys and 75 percent of the girls. Although it can be hoped that there has been some improvement in the vocational guidance services in the secondary schools since the time these young people were in school, recent information obtained in working with students in secondary schools suggests that much further improvement is needed.

Quality of teaching had an important effect on the present quality of life of many of these students. For the boys, good and bad effects were

about even. For the girls, the good effects clearly outnumbered the bad. With the present oversupply of teachers it should be possible to replace those who, the students report, are "just doing it for the money" with interested, motivated, and well-trained personnel.

Individualized instruction is clearly a major need throughout the nation's schools. The futility and sham of having students spend time, year after year, on materials they cannot read or learn from, or, for some others, on materials they already know, must be eliminated. This individualization has been achieved in a number of schools and should be mandatory in all schools. It is not intrinsically more expensive, but does require some organizational and planning changes in many schools.

The curriculum available to these students is, in many instances, inappropriate and inadequate. Often, non-college bound students did not get the courses that would have been most valuable in improving their present quality of life. In some cases, courses such as industrial arts or auto repair might add to per-pupil costs. In other instances, courses in marriage or family problems could be added without appreciable changes in costs.

Personal support and counseling concerning personal, social, and emotional problems was a critical need for more than a third of these students. Very few of them obtained appropriate help. Better teacher training in some of the principles of emotional development and ready accessibility of professional help would make an important contribution to the quality of life of many of these students.

Because the analysis and interpretation of education's contribution to the quality of life of each of these individuals is of great importance, plans have been made to continue to study these lives over a period of time. This program will involve a panel or panels of some of the leading experts in educational planning. Although at least five major problem areas have been defined quite clearly, it is anticipated that, with the assistance of these experts, some other deficiencies may be identified. With the help of this group, specific plans for the improvement of education in various areas will be developed.

REFERENCES

Flanagan, J.C. The critical incident technique. Psychological Bulletin, 1954, 51, 327-358

Flanagan, J.C. Education's contribution to the quality of life of a national sample of 30-year-olds. Educational Researcher, 1975, 4, 13-16.

Flanagan, J.C., Cooley, W.W., Lohnes, P.R., Schoenfeldt, L.F., Holdeman, R.W., Combs, Janet & Becker, Susan J. Project TALENT one-year follow-up studies. (Final report to the U.S. Office of Education, Cooperative Research Project No. 2333.) Pittsburgh: Project TALENT Office, University of Pittsburgh, 1966.

Flanagan, J.C., Davis, F.B., Dailey, J.T., Shaycoft, M.F., Orr, D.B., Goldberg, I., & Neyman, C.A., Jr. The American high-school student. (Final report to the U.S. Office of Education, Cooperative Research Project No. 635.) Pittsburgh: Project TALENT Office, University of Pittsburgh, 1964.

Flanagan, J.C. & Russ-Eft, D. An empirical study to aid in formulating educational goals(AIR-42000-6/75-FR). Palo Alto, California: American Institutes for Research, 1975. (a).

Flanagan, J.C. & Russ-Eft, D. Identifying the components determining quality of life for Americans. Palo Alto, California: American Institutes for Research, 1975. (b).

Flanagan, J.C., Shaycoft, M.F., Richards, J.M., & Claudy, J.C. Five years after high school. (Final Report to the U.S. Office of Education.) Palo Alto, California: Project TALENT Office, American Institutes for Research and University of Pittsburgh, 1971.

Shaycoft, M.F., Dailey, J.T., Orr, D.B., Neyman, C.A., Jr., & Sherman, S.E. Studies of a complete age group--Age 15. (Final report to the U.S. Office of Education, Cooperative Research Project No. 635.) Pittsburgh: Project TALENT Office, University of Pittsburgh, 1963.